

CLAIMS

1. A bit assembly for a hammering and rotating drill, in which assembly the drill body (1) is arranged to drill essentially the middle portion of the hole and in the drill body (1) mounted one or more hammering bit (2),(3) is arranged to drill the outer circle of the hole and the mentioned outer circle of the hole drilling bits (2),(3) are arranged to drill a drilling surface, which locates further behind in the drilling direction than for the drill body (1) meant drilling surface (L1) and that the mentioned bits (2),(3) are further mounted in a drill body (1) formed counter cavities (7), the axial directions (S) of which have either the same direction as the drilling direction has or deviate outwards from it, **characterized** in that in the counter cavities (7) mounted bits (2);(3) can at least a part of their way out of the counter cavities be transported out in the direction which deviates from the axial direction (S) of the counter cavity in order to make the outer diameter of the drilling unit smaller.
- 15 2. A bit assembly according to claim 1 **characterized** in that into the counter cavity (7) of the bit (2) mountable portion is a rotation piece wherein the bit (2) is meant to rotate in its counter cavity (7) in the drilling situation.
- 20 3. A bit assembly according to claim 1 **characterized** in that the bit (3) deviates from a rotation piece and it is meant to be unrotatable in its counter cavity.
- 25 4. A bit assembly according to claim 1 or 2 **characterized** in that the bit (2) which drills the outer circle of the hole is arranged to drill only by means of a part (9) of its drill surface wherein the rotation of the whole bit assembly during drilling rotates also the mentioned bit (2) round its own axis.
- 30 5. A bit assembly according to claim 1 **characterized** in that the bit (2);(3) can be moved out from its counter cavity (7) so that it moves wholly inside the casing tube (4) which follows the bit assembly wherein it is possible to remove the bit assembly from the hole and to remain the casing tube in the hole.
6. A bit assembly according to claim 1 **characterized** in that the side form of the counter cavity (7) is curved wherein in the cavity mounted bit (2) turns to the centre axis of the drill

body (1) when the bit (2) comes out from the cavity.

7. A bit assembly according to claim 1 **characterized** in that the side form of the counter cavity is step-like.

8. A bit assembly according to claim 1 **characterized** in that the fixing of the bit (2);(3) to the counter cavity is arranged by using a fixing arm (6) which allows the bit (2);(3) move needed distance in wanted direction out from the counter cavity.

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9. A bit assembly according to claim 1 **characterized** in that the counter cavity is arranged into the drill body (1) by means of a separate bushing (5) which is fixed in a hole drilled into the drill body (1).

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10. A bit assembly according to claim 1 **characterized** in that the bits (2);(3) drilling the outer circle of the hole can be changed by disassembling the fixing arm arrangement (6);(8)